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ABSTRACT

An elementary school teacher developed a learning community classroom with four key characteristics: (1) task and objective monitoring systems; (2) use of heterogeneous groups; (3) fostering of individual responsibility; and (4) fostering of group responsibility for learning. It appeared that collaborative planning between teacher and pupils was the key strategy contributing to the learning community characteristics. A second contributing strategy was the explicit management and organization system employed by the teacher. Examples are given of classroom events that illustrate how the teacher established a learning community classroom, what happened during collaborative curriculum planning, and the pre-planning techniques of the teacher for daily activities. Implications for teacher education are discussed. Appended are the teacher's notes on the two units of study completed during the school year. (Author/JD)

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Research Series No. 145

DEVELOPING AN ELEMENTARY-SCHOOL, LEARNING-COMMUNITY CLASSROOM

Joyce Putnam

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Abstract

This report is a description of a teacher who developed a learning community classroom. There were four key characteristics of the learning community classroom. These characteristics are (1) task and objective monitoring systems, (2) use of heterogeneous groups, (3) fostering of individual responsibility, and (4) fostering of group responsibility for learning. It was found that collaborative planning between teacher and pupils was the key strategy which contributed to the learning community characteristics. A second contributing strategy was the explicit management and organization system employed by the teacher.

DEVELOPING AN ELEMENTARY-SCHOOL, LEARNING-COMMUNITY CLASSROOM[1]

Joyce Putnam[2]

This study is based on the assumption that rich descriptions of effective classroom teachers' curriculum development and implementation efforts are necessary for the improvement of teacher education. In this paper, I describe the curriculum development and implementation efforts of an effective teacher, Janet Forero,[3] whose classroom was what Schwab (1976) described as a learning community.

Study Overview

Learning Community Classrooms

Classrooms that function as learning communities have certain identifiable characteristics (Schwab, 1976). As a classroom group, the students solve problems that require interdependent thought, action, and cooperation. The teacher's planning and instructional approach provides opportunities for the group to achieve a sense of common purpose. The teacher uses record-keeping systems to monitor task completion and the acquisition of basic skills. This allows the teacher to place students in heterogeneous groups in which they are encouraged to contribute their diverse strengths to collective problems. Organization and management systems are designed to promote individual and group responsibility, a sense of shared membership, individuality, and reciprocity in relationships. In such classrooms, planning and teaching are not

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[1]This paper was presented at the 1983 annual meeting of the American Educational Research Association, Montreal, Canada.

[2]Joyce Putnam is a researcher with the IRT's Teacher Explanation Project and an associate professor of teacher education at MSU.

[3]A pseudonym.

the function of the teacher alone. Other members of the learning community--other adults, younger schoolmates, and older schoolmates--plan and teach too (Barnes, Burke, & Putnam, 1979).

Emerging evidence reveals that the social context of the classroom can effectively promote academic achievement and simultaneously lead to development of unusually high levels of individual and social responsibility. We understand that each classroom is a cultural system--a subsystem of the school, which in turn is a subsystem of the society. Thus pupils, upon entering school, first learn to participate in the classroom system. Successfully learning to participate in the classroom system is important for learning. The system is composed of more than procedures, it also includes people.

O'Daffer (1976) suggests that students need interaction with each other in order to maximize their potential as learners:

> When students work in groups and communicate more often with each other and with the classroom teacher, changes are effected in their approach. This personal recognition from others, both peer and teacher, is a basic need that must be considered. (p. 27)

Robinson (1976) reported an experimental study in mathematics education in which students were trained to work cooperatively. Not only did she find positive results in improved math skills, but she reported other positive effects of team work. The students were

> taught an attitude of cooperation, pulling together, helping others, sharing problems and solutions, and, indeed, unashamedly asking for help, all necessary values for today's world citizen. (p. 206)

Bossert (1979) suggested that self-directed work behavior among elementary school students is associated with activities involving minimal, direct teacher control. He based this suggestion on a study in which students whose teachers relied heavily on group recitation and seatwork--tasks entailing high levels of teacher control--showed little self-directed behavior when

confronted with new, fairly undefined tasks. While learning to work alone, these students depended on their teachers to specify proper work procedures. By contrast, students encouraged to choose and organize their own tasks learned to begin new activities on their own without waiting for detailed instruction.

A growing body of evidence demonstrates that the approach to instruction called learning community has merit. To demonstrate how philosophy influences planning I selected the learning community as a form of instruction to study because the philosophy was clearly expressed by the research subject and the literature supported this type of classroom.

Purpose

In this study I described the dynamics of a learning community classroom and came to understand how the learning community philosophy is translated into plans and activities. To facilitate the initiation of the study I asked the following questions:

1. What characteristics of the school and classroom environment appear to be important to the creation of a learning community?

2. What skills are acquired in the context of a learning community that may not be intended or expected in the usual school curriculum (unintended outcomes--e.g., cooperation, tolerance for differences, collaboration with others in work, etc.)?

These questions were derived from what anthropologists refer to as an embryonic or early hypothesis about the qualities of Forero's classroom as a learning community (Schwab, 1976). My initial hypothesis that this might be a learning community classroom was based on data collected during visits to the classroom over six years; from interviews conducted by experts in the field of education (Lanier, Shulman); and average pupil gains in reading on the Gates-McGinite Form B test in Forero's classroom in 1974-75 of 1.6 years and in

1975-76 of 1.9 years. I felt that this classroom environment was close to what Schwab (1976) had called a learning community.

During the total of seven years she was teaching, Forero consistently emphasized cognitive learning with special attention to basic skills while promoting social responsibility and the development of individuality in her students. The fact that Forero demonstrated an awareness of her decision making and could articulate it well made her especially suitable for a participant-observation study. This study began, then, from the general notion that I and other learning-community-program faculty thought we knew what the learning community looked like, felt it was important to identify and describe planning procedures for and characteristics of one in action.

Procedures

Because I needed the most contextually revealing and enriching method of study I could find, I selected ethnography, which is rooted in anthropology and sociology. Erickson (1977) has asserted that what ethnography does best is

> describe key incidents in functionally relevant descriptive terms and place them in some relation to a wider social context, using the key incidents as a concrete instance of the working of abstract principles of social organization. (p. 61)

Further, I believed with Wolf and Tymitz (1977) that "naturalistic inquiry helps to illuminate the complexity of human developments and interactions."

I conducted a one-year case study of Forero and her first/second-grade morning class.

I collected documents from the teacher, students, school administrators, and aides. The documents included student products, maps of classroom seating and work areas, and teacher planning products.

Intensive data collection occurred during the first three weeks of school because studies by Evertson and Anderson (1978) have indicated that classroom experiences at the beginning of the year greatly influence what transpires thereafter. Less intensive data collection continued throughout the rest of the year. An expanded description of the data collection and data analyses procedures can be found in Putnam (1984).

Context

The classroom was located in a midwestern, rural, consolidated school district, serving a diverse, but predominately low socioeconomic status population comprised of farmers, blue collar workers, welfare recipients, and a small Hispanic/Mexican American population--some migrants and some permanent district residents. Forero's classroom, one of three portable classrooms, abutted a K-6 elementary school.

Overview of Findings

At the heart of a learning community classroom is collaborative decision making between teacher and students. I found three aspects of planning directly related to this sort of collaboration. First, Forero reflected upon what she knew about her students, her individual and group responsibility objectives, her content objectives, and her resources. Second, and most important, Forero and her students planned objectives and activities together and thus designed a unit of study. Third, Forero considered the probability of individual student success in the designed unit of study. In predicting success, she decided (1) whether the collaborative plan would be implemented or a new one designed and (2) whether students would work in small groups on one activity or if multiple activities would occur simultaneously.

I found several key characteristics of a learning community in Forero's classroom. These characteristics are (1) task and objective monitoring systems, (2) use of heterogeneous groupings, (3) fostering of individual responsibility, and (4) fostering of group responsibility for learning.

In addition, I found that Forero believed that the primary function of schooling was fostering personal and social responsibility. She considered academic learning the major personal responsibility and helping others learn the major social responsibility. We found that Forero used information gained during collaborative planning sessions to help determine actual objectives for individual students, and she believed student motivation and responsibility resulted from students participating in decision making about their work.

The First Day of School Leads to Key Orienting Questions

On the first day of school, Forero's students made decisions together about the content of activities they would do. What I studied were the characteristics of student participation in decisions about curriculum, content and process, environment, group process and individual behavior (group and individual responsibility and use of heterogenous groups). This student collaborative decision making evolved into a system that allowed the students to discuss, plan, problem-solve and make decisions with Forero. A partial description of the first day of class follows. From that description eight characteristics emerged as key elements of Forero's learning community classroom.

> The room was divided into three parts. The front part of the room contained one desk for each student, a "teacher's desk" (frequently used by students during the year), a two-story loft, a seven-foot bench, a chalkboard, bulletin board, a cubby box or shelf for each student to keep things. The other two parts of the room were set up with round tables and chairs for small-group work.
>
> As the students entered the room, the teacher greeted each one of the first or second graders, calling them by name or asking their name. She inquired of each about a family member, pet, or some

personal item. She watched them find their desks with their names on them. She showed students who didn't recognize their names where their desks were.

When everyone was in his or her seat, Forero started a whole-class session by asking the students to fold their hands. Then she said, "We've got to get to know each other. You can call me Janet. I think Forero is a hard name to say." She introduced other adults in the room (the researcher and an aide) by their first names. Then she said, "If we are going to work together we've got to figure out how to be together. We spend so much of our life here at school. We'd better learn to be like a family when we're together. That means some things will be alright for us to do and some are not alright." Forero and the students took turns mentioning things to do and not to do.

Forero then said, "In this room sometimes we vote on things; and sometimes we will try to get everyone to agree." She described what voting meant, giving examples. A student asked if the class could vote about what to do if someone "is not good." Forero asked everyone who wanted to be good to raise his/her hand. Forero said, "Everyone wants to be good, so I don't think we'll have a problem."

Next, Forero led a conversation about feelings. She used several personal examples to show the difference between "like" and "love." She asked children to give examples. After relating the concepts of "love" and "like" to the students' interpersonal relationships, she read the story Things I Like.

After Forero finished the story, she asked, "What is an illustrator? Does anyone know what an author is?" Several students raised their hands and before Forero could systematically call on anyone, someone had defined author and someone had defined illustrator. In each case, Forero asked other children to paraphrase the correct answer.

She then said that the students would do some writing. This comment elicited some grumbles that Forero responded to by saying, "I don't think that is the right attitude." She then elaborated on the task, saying that in about two weeks the students would each have made a book that they could take home. She explained that today they would select a picture to write about.

Taped to the chalkboard in front of the class were eight pictures. The pictures included: (1) children baking something, (2) an adult and child hugging, (3) a child hitting a baseball, (4) a child in autumn woods, (5) children with an animal, (6) two children doing artwork in school, (7) a father and son, and (8) a child alone thinking. Forero asked the students to describe each picture or something the picture reminded them of.

Finally, she said that they were going to vote to pick the topic that they would write about. She explained that each child could vote only once. There were 25 students, and after the first voting

there were 29 votes. Forero said, "Please close your eyes and think about whether you voted one time or two times." She then went over the pictures once more and reminded the students to raise their hand (vote) for one of the pictures. She said, "Raise your hand to vote for the picture that you want to write about today." The vote was held again, and this time there were 25 votes. The title of the picture that won was "Family" (Picture 7, listed above).

Key characteristics of Forero's learning community classroom that emerged during the first day of class were

1. an emphasis on student and teacher participation in decision making,
2. acceptance of a range of feelings but an emphasis on the transaction,
3. talk about the class as family,
4. links to family via writing assignment and homework,
5. self disclosure by adults,
6. integration of social and academic skills building on themes discussed that morning (e.g., family, linking),
7. use of first names by everyone, and
8. student and teacher statements about quality of behavior with specific examples provided.

These characteristics were the central advance organizers for Forero's classroom operations for the entire year. Of particular interest here is the advance organizer emphasizing participatory decision making. This was observed during the year when members of the class (1) gave specific positive and negative feedback to each other (student/student, student/teacher, teacher/student), (2) voted on issues, (3) called class meetings (e.g., to discuss eliminating board work, discuss group noise level, or explicate personal progress or achievement of objectives), and (4) collaboratively planned curriculum content and instructional activities.

In summary, an early hypothesis pursued in this study was that the essential characteristic for establishing a learning community classroom involved teacher-pupil collaborative planning and/or problem solving sessions.

The following questions guided my observations in Forero's classroom:

1. How did this teacher establish her learning community classroom?
2. What happened during collaborative curriculum planning?
3. Why did the teacher hold collaborative planning sessions?
4. What did the teacher do to get ready for collaborative planning sessions?
5. What resulted from collaborative planning sessions?
6. What student behaviors are characteristic of this learning community classroom?

How Did This Teacher Establish Her Learning Community Classroom?

The essence of Forero's learning community classroom was established in 30 contact hours, 15 class sessions, or 21 calendar days. By that time, Forero had provided instruction, practice, feedback, and application experiences for routines, procedures, and four specific attitudes. The attitudes that Forero focused on were these: (1) be positive, (2) enjoy learning, (3) realize that teachers are responsible for teaching and students are responsible for learning, and (4) realize that helping and being helped are your responsibilities.

Forero taught specific behaviors for each attitude. For example, she taught her students how to be helpful and how to get help. Students were required to know

1. how to offer help to someone,
2. how to ask for help,
3. how to listen to the helper,
4. how to help (tutor),
5. how to say they could not help,
6. when to say they could not help, and
7. how to say they did not want to help.

She began the lessons for the helping procedure by telling the students that being helpful was necessary in this classroom and that it was okay to say no or to be told "I can't help you."

The initial instruction took the form of discussion, Forero reading stories to the class, and role plays. First, Forero told the students about the importance of helping. She gave examples of how she, her child, husband, mother, father, sisters, and brothers helped one another. Then she asked the students to give examples of how they helped others outside school. Next, Forero told how she helped students in the classroom and asked the students to give examples of how they helped each other in school.

She read a story, the point of which was helping, and showed posters of children and adults helping each other and their pets. After the story, the students were asked who, what, where, and when questions, with a focus on who was helping and who was not. Forero then asked the students to say how they thought the children and adults were helping in the pictures. Forero and the students voted to determine which picture they would use to write a class experience story about, and then they wrote a story.

In order to teach how to solve problems and how to help, Forero and two students, before school began the next day, planned one role play about someone's pencil being taken and one role play about teaching someone something.

The next day, during the opening activities as planned, Steve yelled, "Marty took my pencil."

"Steve, did you see Marty take your pencil?" asked Forero.

"No," said Steve.

"But your pencil is gone?"

"Yes."

"What can you say?"

"My pencil is gone."

Forero then discussed her three conclusions about the pencil event with the students. The first was, "When something happens report observations only and don't blame people for things you don't observe." The second was "If you have a problem and can't solve it yourself, with another pupil, and/or the teacher, turn out the lights to get everyone's attention and we'll solve it as a group." The third was "If you need something, ask. Someone will help, and if you are asked to help, do what you can."

Forero then implemented a role play for teaching the students how to help (tutor) one another. After the role play, she asked the students to tell her what was done and how the helper and helpee felt at different times.

After the first two days, Forero provided the students with opportunities to give and receive help. When problems arose, she stopped the class, stated the problem, and asked what they had said before about this or how this was done in the role play. Students daily received feedback or were asked how they were doing or how others were doing. Examples of Forero's feedback follow:

1. You had to ask three people to find someone to help you with _____. I'm glad you stuck to it, now you have this done.

2. Your work is not done, and I saw you helping Frank most of the morning. You like to help. You'll have to figure out how much time you can help and how much time you have to do your own work. See me tomorrow.

Forero made peer helping an integrated part of her instruction. She was observed daily making such comments as, "Marcus can help you with this if you have trouble; he has already mastered it" or "you've got this right now; you can help others who are still working on it."

An example of how Forero taught the pupils a routine follows. The routine required pupils to take home a folder every night and bring it back to

class every morning. Forero taught a routine much the same way she had taught the students to help each other. First, however, she taught the students what to do and why. Forero then asked the students to repeat the instructions to her. The role play involved one student walking in the door with his folder and one student walking in without it. Forero played herself and interacted with the students as she would the next day. On the morning after the students had taken their folders home for the first time, she positioned herself near the place in the room where students who had brought their folders and a signed slip would go. As each student came into the room, she greeted him/her and said, "I see you have your folder. Did you read to someone last night? Do you have a signed slip?" She directed students who did not have a slip to their desks and students who did have a slip to the bulletin board where she was.

Forero asked students who did not have their folder to think about where they had left it. She closed her eyes and put her index finger by them to model thinking. Some students went to their lockers and returned with their folder. Some said such things as "my brother burned it up," "my mother wanted to keep it," and "my grandmother gave it to you before school." Forero talked to each about the consequences of not being able to do something because the folder was not there (for example, practice a Halloween poem).

By the third day of school, all students had taken and returned their folder once. By day four, all but two students had done it twice. On the fourth day, Forero had the class think about where they would put their folder when they went in the door at home. She then told them to always put the folder in the same spot. Only one student continued to have problems with materials after the first 15 days of school.

In addition to the folder routine Forero systematically established the following routines:

1. folding hands and looking in eyes of leader at the beginning of a whole-class presentation;
2. taking home every night a book at independent reading level, reading to someone older, having slip signed, returning slip, answering questions about the book, and marking chart; and
3. storing certain things in certain places.

Forero defines routines as sequences of behaviors that did not involve problem solving or interactions with other students in class. She defined procedures as events or sequences of steps that require interaction with other students. In addition to the helping procedure, Forero systematically established procedures for

1. voting to decide something,
2. problem identification,
3. evaluation of self and others,
4. before-school studying, and
5. initiating requests to be evaluated or to be helped.

Forero established a learning community classroom by selecting, systematically teaching, and reinforcing attitudes, routines, and procedures that she felt contributed to the learning community philosophy.

What Happened During Collaborative Curriculum Planning?

Major collaborative curriculum and instructional strategy planning occurred on five occasions. Each occasion included eight steps:

1. Forero described a concrete activity in which everyone would participate and her rationale for suggesting the activity.
2. The class did the concrete activity (e.g., a treasure hunt, making applesauce).
3. Students answered who, what, where, when, and why questions for a group experience story.

4. Students answered who, what, where, when and why questions for an individual experience story and wrote a story about their previous experiences related to the concrete activity topic.

5. Forero and her students answered two questions that led to the identification of the potential subject matter to be learned and some ways it could be learned.

6. Forero met with students to identify specific tasks for which they would be held accountable.

7. The class collaboratively defined the tasks and sequenced steps.

8. The students and Forero specified individual academic objectives.

These steps are described more fully in the following paragraphs.

Step 1. Forero told the students they were going to make applesauce. She explained to the students her interest in the activity and the topic it represented. For example, Forero included in her rationale about making applesauce how her personal interest in apples began. She shared stories about growing up on an apple and vegetable farm. She shared examples of (1) when she was punished by her parents, (2) when she was praised by her parents, (3) what types of family events she liked, and (4) what knowledge related to the topic of study. From her description, the students learned more about her upbringing, values, interests, and shortcomings.

Step 2. Forero and her students then participated in the concrete activity, which Forero calls "the initiating common experience." This time, it was making applesauce. While the students were making and eating applesauce, Forero interacted with them and made first observations of their language development, social and cooperative skills, writing and reading skills, and memory patterns. (Later she made notes on 3" X 5" cards about what she had learned. She then used the information she collected to determine individual instructional needs. See Step 8.)

Step 3. Next, Forero and the students formally discussed the event. The students answered who, what, when, where, and why questions and produced both a collaborative experience story and a written or verbal individual experience story.

Forero began the discussion by saying, "Can we appreciate diversity, welcome individual learning, and still develop one applesauce story?" Some of you can read, and some are learning to make a circle correctly. How can we all use this experience?" Forero and her students then talked about the meaning of "appreciate," "diversity," "cooperation," and "learning." Forero then focused the discussion on the applesauce activity.

In writing the collaborative experience story, Forero and the students agreed on each word and sentence. Forero asked, for example, "What did we do to the apples?" The children responded with a variety of suggestions, including squish, squoosh, and squash. Forero wrote the words on the board, and the students said each word, talked about what it meant, if it was fun to say or hear, and identified what sounds would be studied in each word. Forero then indicated which students would study which specific vowel combinations. The students voted on which word to use in the story.

After the sentences had been agreed on and written, Forero wrote the words "title" and "author" above the story. The group then selected a title and decided how to tell who the author of the story was.

After the experience story was completed and written on the board, Forero had the students use it in reading and writing activities. She wanted her students to be aware that reading and writing are closely related. Following are some of the activities:

1. Students copied story for handwriting grade.
2. Students learned to individually read story.

3. Students cut story sentences apart and rearranged them.

4. Students identified words in the story that they wanted to replace with synonyms.

5. Students identified the nouns, verbs, and adjectives in the story.

6. Students cut out individual words and made sentences and a story out of them.

7. Teacher assisted students in using story words for needed word-recognition and decoding skills (i.e., find sight words they are studying, identify phonetic principle words, cvc, cvvc, ccvc, structural analysis, ed plurals...).

8. Students made changes in sentence structure.

Step 4. While the class studied the experience story (worked on one of the above activities alone or with a helper), Forero met with individual students to write down a personal experience related to what she called the initiating common experience, in this case, making applesauce. All the personal experiences dealt with apples. Students dictated their personal stories to Forero, who typed them directly on a ditto. The dictating student was identified as the author. Forero analyzed the finished personal stories for their potential use as instructional materials. (See study episode under "Results of Collaborative Planning Sessions.")

Step 5. Together, Forero and her students formally developed the subject matter to be learned. Forero set the stage for a discussion and brainstorming session by asking first, "What can we learn?"

Forero wrote the titles of all the subject matter areas on the board. The collaborative curriculum development began when she asked questions such as these:

> Besides what we learned during the initiating common experience, what else do we know about apples? When do you find apples in the store? Why do adults say you can have an apple instead of a candy bar? If you brought an apple to eat at recess and your best friend wanted part of it how would you solve this problem?

As students responded to the questions, Forero provided direct guidance so that science ideas were classified on the board as science, math ideas as math, and so forth. In addition to asking questions, Forero asked students to read their personal stories to the class to generate additional ideas. For example, Christa read the following:

Author: Christa APPLE BARK

My mother and I like to make apple bark.
We use red delicious apples, a pan, a hot plate, a spoon and a cookie sheet.
We make the apple bark in our kitchen.
We make it in the fall. Usually we make it around Halloween time.
We make it because we all like it. We take it with us on walks and when we go in the car. It is a good snack.

After the story was read, the children asked the student-author questions. From this, two study topics were developed. One series of questions focused on cooking, hot plates, temperature and burning. Thus one topic involved electricity, the interest emanating from the children's focus on the hot plate and how it worked. A second series of questions about things you can make with apples were also asked by the students. The second series of questions grew into a study of healthful snacks (without preservatives).

Having determined specific content that could be learned, Forero asked, "What can we do?" The conversation then turned to her asking specific questions for identifying activities. Now Forero's purpose was to generate ideas for subject-matter activities. As students made suggestions (e.g., trip to orchard, making apple pie), not all were appropriate (let's make a hot plate), she responded in a supportive manner, giving examples of what could be learned from the suggested activities. She then asked the students to classify their ideas under the appropriate subject-matter title, and she also added ideas, explaining to pupils how to classify them.

The result of Step 5 was a large list of subject-matter topics and activities. At this point, Forero considered the probability of student success if the planned study was implemented. Forero also decided whether they would work on a number of activities or whether everyone would participate at the same time in a given activity. (For further discussion, see In-process planning decisions under "What Forero Did to Get Ready For Collaborative Planning.")

(See Appendix for example of Forero's curriculum notes made after Step 5 was completed. Notes from two different units are included.)

Step 6. When content and potential tasks had been collaboratively identified, Forero and her students collaboratively identified the specific tasks for which a given individual student would be held accountable; they decided which activities they would do. Since many ideas were originally generated, students could make choices and the teacher was able to make slight adjustments in order that tasks fit objectives. Forero and her students made a list of required tasks for each student. This collaboration was done in small groups, individually, and through whole-class discussion.

Step 7. When Forero decided that a single class activity would be used, the whole class defined the steps that would be followed to complete each task. During class discussion, Forero recorded the steps and tasks on the board again and again as they were collaboratively reordered. She continued this until there was agreement on a sequence.

When subsets of the students were to work on different activities, Forero met with each subset and did the same as above. For example, students choosing the focus on math as the primary area of study might begin organizing a series of measurement activities. The final part of Step 7 involved

development of a monitoring system. This system allowed the students the opportunity to check off and keep track of their task progress.

Step 8. During the eighth step, while the class worked in small groups, in pairs or individually, Forero and each student held a conference to (1) identify content and responsibility objectives and (2) determine the level of student accountability. Each student developed a list of personal objectives with Forero during this conference. Forero (1) told the student what observations she had made about his/her independent work during the common initating experience, (2) showed the student the written or taped work, (3) told the student specifically what s/he currently could and couldn't do, and (4) gave examples of what the student would be able to do by the end of the unit.

Next, Forero determined the level of student accountability. The student was told which level of knowledge s/he must demonstrate (e.g., practice, application, or transfer) for academic credit. Students who were being introduced to new content usually were held accountable for practice-level demonstration. Students who had already reached the practice stage were moved to application. Forero recorded credit for any new knowledge or skill gained only when the student was able to actually use the new knowledge or skill in a new situation. For example, a student might be asked to demonstrate the difference between an exclamation point and a period by reading paragraphs and indicating the difference with voice and nonverbal expression. During the year, students became adept at defining their tasks as instructional, practice, application, or transfer in nature.

Step 8 ended with Forero and each student listing the student's objectives and figuring out a way for the student to keep track of his/her academic achievement. Thus teacher and students developed both a task and content record-keeping system.

Collaborative planning (Steps 1-5) took about 14-16 hours and was conducted across 7 or 8 days.

Why the Teacher Held Collaborative Planning Sessions

The collaborative planning sessions were held because they were the process by which Forero implemented her basic assumptions about teaching, learning, and the primary function of schooling. From her perspective, the primary function of schooling was to develop social and personal responsibility for learning. Her operating assumptions and role in getting students to accept responsibility for learning are described in Table 1. The statements concerning Forero's assumptions are organized around the topics of students, learning, curriculum, evaluation, and her role as a teacher.

Forero's leadership style can be classified as authoritative (Brophy & Putnam, 1979). From her point of view, the students' contributions during the collaborative planning sessions helped her fulfill her role by providing her with information about (1) where to start a topic of study so that it was linked with students' previous concrete experiences; (2) how interested students were in the proposed topic and tasks (thus helping her think of activities that would make use of the students' interests); and (3) who was initiating, responding, or not participating in which activities. She used all this information in her decisions about leadership, seating, necessary interpersonal instruction, and content instruction and evaluation. Thus, Forero held collaborative planning sessions because they were essential to both her and her students' success. (Interview 3/12/81)

What Forero Did To Get Ready For Collaborative Planning

Forero planned and made decisions without her students at two specific times. She planned before a new topic was considered by the group in the

Table 1

Forero's Operating Assumptions

Students	Learning	Curriculum	Evaluation	Teacher
. enjoy learning.	. is more apt to occur if students can relate present activities to previous concrete experience.	. consists of integrating school learning experience with real life applications.	. is based on individual performance of group tasks.	. teaches.
. are more likely to achieve if they participate in planning own outcomes and related activities.	. involves socialization (i.e., working with others, acceptance of diversity, heterogeneous interaction).	. incorporates integration of content so that transfer of learning occurs.	. must include elements of cooperation, participation by all, and meeting subject matter demands.	. holds a position of authority and responsibility.
. will become responsible learners if given the opportunity and if held accountable.			. must occur at both formative and summative levels.	. speaks as an experienced and mature adult.
				. retains ultimate accountability and decision-making power.
. will behave appropriately when taught how to distinguish between appropriate and inappropriate behavior for a given setting.				. solicits input.
				. seeks group consensus.
. have a responsibility to help other students learn.				. communicates rationales for decisions to students.
				. communicates decisions to students.

collaborative planning session and made in-process planning decisions after the collaborative planning.

Before collaborative planning. Before she began a collaborative planning session, Forero reviewed what she knew about the (1)curriculum, (2) objectives, (3) students, and (4) classroom, school, and community resources. In addition, she reviewed student records at the beginning of the school year and any new texts or materials that had become part of the school curriculum since the previous year.

Based on her initial synthesis of this information, she identified those student outcomes for which she would hold herself accountable. At that time she developed a recording system for documenting students' achievement of objectives. She reviewed it each time a unit of study ended. This helped her keep in mind what needed to be worked on both while she planned alone and with the pupils. After the mental review, Forero selected a topic for study. Next she gathered any additional information she felt she needed to develop the topic into an area for study and decided on the common initiating experience.

Once the topic and concrete experience had been chosen, she listed potentially related activities. Thus, before each collaborative planning session, Forero (1) identified an area of study, (2) synthesized related knowledge, (3) listed possible pupil outcomes, and (4) listed possible activities. Forero did not make these decisions final until after the collaborative planning session.

In-process planning decisions. After the collaborative planning session, Forero made in-process planning decisions. She decided whether there were sufficient ties between the students' life experiences and the new content for students to be interested and able to carry out work. If there weren't, she identified a new concrete experience, and the process started again.

If the answer was yes, she made a second decision. When Forero and the students had identified (1) a topic of study, (2) activities, and (3) potential knowledge and skills to be learned, Forero decided whether the students would have the option to choose among activities or work as an entire class on a single activity.

Once she made these in-process decisions, she communicated them to the pupils, and together they began an extended period of study.

Results of Collaborative Planning Sessions

The collaborative planning sessions set the stage for what was to follow. First, the students studied the unit as planned for a period of time that was referred to as the "study episode." Second, the plan as implemented included built-in opportunities for diverse instruction and working relationships. Third, students and teacher used the collaborative planning process to discuss off-task behavior as well as content objectives and strategies.

Study episode. About eight days after the class participated in a concrete common experience, they were ready to begin an extensive study episode. During the study episode, students completed activities and worked toward academic objectives as planned. Both task and academic objectives were adjusted during the study episode if Forero and a pupil determined that they were inappropriate (i.e., when she had misassessed and later found that the work was based on prerequisites the student didn't have or the student already knew how to do what had been planned), they immediately identified alternative tasks and objectives. The study periods lasted from 8 to 18 days, depending on the work pace and motivation of Forero and her students.

Each day's study period was organized into three parts: (1) determining tasks, (2) working, and (3) closing. In the first part of the study period, the group shared news from outside the classroom and decided what tasks needed

to be done next. In the second, Forero instructed the whole class, small groups, or individuals, and students worked. In the third, Forero reviewed group behavior and individual progress, reminded students about home tasks, and planned for the next day.

During the study episode, as the students completed their activities and reached their objectives, Forero would discuss with the class a closing date for the unit of study. By the closing date (last date for topic), Forero had evaluated all students to determine their progress. Daily class discussions were held during the last 2 to 3 days of study. Students shared with each other the new knowledge and skills they had acquired (e.g., reading with voice inflection, reading a story one had authored, telling how many sight words one had accomplished). Students who had not completed tasks or reached objectives held conferences with Forero to determine causes (e.g., didn't pay attention in class, too many or the wrong objectives chosen). These conferences always ended with an agreement between the teacher and the student to try to make better decisions next time.

Forero came into instructional contact with each student each day. Each individual contact was anywhere from 8 seconds to several minutes long. Students helped each other and were helped by others at various times.

Recess came in the middle of the work session and the number of pupils who left the room averaged 10 out of 25. The students who stayed to work and those who went out varied. As one first grader explained, "I stay in when I want to learn and I go out when I want to play."

Off-task student behavior almost never occurred during study periods. When it did, it involved such things as (1) a student saying s/he didn't feel well and being left alone to sit in his/her seat, (2) a student who entered the group later in the year and attended to work for part of the time and then

walked around, (3) brief social conversations between students passing each other on their way to do something task related, and (4) children going to the bathroom or drinking fountain.

When disruptive off-task behavior did occur, a class meeting was called. Either a student or Forero flicked the lights to get everyone's attention and then stated the problem. For example, once a student said, "There is so much talking in here I can't work at my desk," and once Forero said, "Seven people have interrupted Susan and me and I can't help her." The problem statement was followed by a question asking people to recall if the problem had been discussed previously and, if so, what had been said. When it appeared to be a new problem, whoever was causing the disruption was asked to say what s/he was doing and to explain why. Finally, Forero would ask, "What are we going to do about this?" She never made the first suggestion. Such sessions were no longer needed after October.

A unit of study usually lasted three to five weeks (see Figure 1 for an example).

Student Behaviors Characteristic of This Learning Community Classroom

Students were cooperative, helpful, initiating, assertive, responsible, and seemed to be motivated to learn. These characteristics are found among students in classrooms not established as learning communities, but it is impossible to imagine this learning community classroom without these student behaviors.

Forero fostered personal awareness and responsibility toward academic learning. Students were aware of expectations and outcomes. I found that students could describe what they were doing and what they were learning from a particular assignment. Students showed their assertiveness by voluntarily telling visitors, including me, about their academic and/or personal and

	Monday	Tuesday	Wednesday	Thursday	Friday
First Week	1. Teacher shares personal experience. 2. Teacher shares her planned experience for class. 3. Identify steps to complete "doing" experience. 4. Model a monitor for keeping record of step progress.	1. Students make personal monitoring system for experience's steps. 2. Do experience. 3. Share orally how pupils and she can tell about experience--what outline questions to use for guidance. 4. Write outline on board (early elem. use 5 Ws).	1. Class determines story, following 5 Ws. Discusses all possible sentences and comes to consensus or vote. 2. Teacher writes story on board as it progresses. Reads it as a model, then has class join in choral reading. 3. Students copy story. 4. Students practice story.	1. Teacher meets with individual students to identify specific skills to practice, apply or transfer. 2. Students choose monitor for skills-record keeping (usually uses teacher's check list). 3. Work on reading story and skill work.	1. Lesson assigned based on students' skills. (1/2 of a story or 1 skill). 2. Cut story into sentence strips. 3. Students identify sentences for sequencing of events. 4. Sequence and put together story.
Second Week	1. Cut individual words apart. 2. Reconstruct sentences. 3. Identify and code by underlining words to know in isolation by sight memory. 4. Choose words you would like to make substitutions for (beautiful-pretty, delicious-good, etc.)	1. Students choose step needing completion "catch-up" 2. Class brainstorms about other experiences somewhat related to making applesauce. 3. Teacher writes content headings on board--writes headings for experiences students disclose. 4. All discuss possible activities.	1. Students who have completed class experience and steps, choose new related experiences. 2. Develop materials and process for doing experience. 3. Make monitor for experience steps. 4. Begin experience.	1. Meet with teacher and identify skills to practice, apply, transfer. 2. Decide on skill monitor. 3. Work on experience or skills.	1. Bring closure for group initiating experience for all students. 2. All students select new tasks, system for monitoring, objectives, and/or new skills.

Figure 1. An example of a timeline for teacher/pupil planning and study episode.

	Monday	Tuesday	Wednesday	Thursday	Friday
	Individual, Small Group or Class Work on Integrated Curriculum Tasks				
Third Week	1. All work on personal experience. 2. All work on skills. 3. Students make appointments for oral or written reports/times for visitations.	Individuals work on experiences or skills. Share progress with each other		1. Use students' stories for skill practice. (File for stories and skills.)	1. Closure--share each others' activities and progress. 2. Determine new central group experience.

Figure 1. An example of a timeline for teacher/pupil planning and study episode (continued).

social progress. For example, one day Tony reported he could now recognize a set of sight words on which he had been working. On another occasion, Margaret announced that she now raised her hand in class. In addition, students worked on their work, asked for help, helped others when they could without cues from Forero. They said "no" when they didn't think they could be helpful or when they had several tasks of their own to complete. They also contributed time to help others who were having a difficult time learning something.

Behaviors related to helping were observed regularly. Students made decisions about when they would ask for help, offer help, decline help offered to them, or decline to help others. The result was a sense of community, of working together so everyone would learn. It is this sense of community and the sense of responsibility for and pride in one's own and others' learning achievements that seems important in Schwab's description of a learning community (1978). Numbers of behaviors or categories do not communicate the meaning of those behaviors in practice. Perhaps two stories will illustrate the sense of personal and social responsibility the students in Forero's class communicated.

Forero left before the end of the school year to take a parenting leave. Her class was integrated with the other first- and second-grade classroom. After the children had been in their new classrooms for about a month, I returned to school to complete the data collection.

Example 1. The teachers said they were now having management problems. However, the problem was not with the learning community students, but with the other children. The teachers felt their original sets of children were too demanding, whereas the learning community children were better organized,

more patient, and more consistent in doing their assignments. A second grader reported to the researcher:

> Those kids don't know how to get help. They keep asking the teacher the same thing over and over. They should write it down so when they get back to their seats they could remember how to spell it and not keep going back six times. When you ask someone to spell a word you have to have your paper and pencil.

While the teacher recognized this problem and even its solution (implicitly), she didn't follow through by training her students like Forero had done.

Example 2. One of Forero's students had trouble both in becoming socialized to the learning community classroom and in learning to read. The first time he actually read to the class, everyone broke into spontaneous applause. At the end of the year, the boy asked me if I remembered when he didn't do his work. When I said yes, he said, "Well, I always do it now." I said I also remembered when he would yell or cry when the teacher didn't let him make cookies or dunk for apples because he had not worked on his tasks. I asked him if the teacher should have let him do those activities. His response was, "Oh, she always wanted me to. I couldn't (because) I didn't do my work. But I always do my work now."

Brophy (1983) includes in his definition of classroom motivation three components. They are (a) students value learning for its own sake, (b) students value learning rather than merely performing, and (c) students value actual processes of learning as distinct from outcomes). Generally, students in Forero's classroom talked in terms of one of Brophy's components. They made clear distinctions between outcome and task (as did the teacher in socializing them at the beginning of the year). Unlike what Anderson (1981) found, students concerned primarily with getting seatwork done, students in this classroom explained what they were learning to do as well as how they were doing a specific task. In addition to having learned new things, they frequently

initiated telling me that they had acquired some new set of behaviors and could now do something they couldn't do previously.

In Summary

In this classroom, collaborative planning was the key characteristic that contributed to the learning community environment. This was a classroom in which students were hooked on learning. They cooperated with the teacher in making decisions about what and how they would study. A second contributing characteristic was the teacher's explicit management and organization system (Putnam, 1984). The system was taught to the pupils and maintained throughout the year through conscious teacher behavior.

Implications for Teacher Education

The major influence on Forero's classroom was the consistency between her philosophical position and her behaviors. She attributed this consistency to the planning she did.

Teacher educators who wish to teach their students how to plan for a learning community classroom should note these key aspects of planning: (1) knowing curriculum and long-range goals, (2) knowing a particular set of students and their developmental characteristics, (3) knowing where a given piece of curriculum fits into the year's long-range picture, and (4) knowing how to synthesize the preceding information to form a meaningful curriculum. This study indicates that, in a learning community classroom, objectives are neither disregarded nor devalued by the teacher, and they are not derived solely from curriculum materials; they are necessary for effective planning and implementation of a learning community.

I suggest that teacher educators who wish to change the content of their courses on planning consider several elements. First, teacher educators need

to identify what types of classroom outcomes they are instructing teachers to plan for. Second, teacher educators must understand the beliefs and values that support the different interaction patterns that result in different outcomes. Third, they need to know activities and strategies that will promote specific outcomes. Fourth, teacher educators must know how to do and how to teach others to do long-range planning based on specified outcomes. Fifth, teacher educators need to know how to identify entry characteristics and growth patterns for individuals. Finally, teacher educators must be able to teach their students how to identify specific objectives in light of long-range goals, the particular learners, and available resources. Consideration of these elements results in a view of planning as a dynamic process with objectives functioning in fluid sense rather than a rigid sense.

Forero wanted her classroom to be a learning community and she purposely planned for one. This influenced what information she selected to process, how she processed it, and what decisions she made. The philosophical view she held influenced her decisions about what to teach, how to teach it, and what the academic, social and personal responsibility outcomes would be for learners. For Forero, pupil outcomes acquired in a certain way (learning community classroom) influenced her planning. What Forero actually considered when she planned were the things she saw as contributing to these outcomes. This is consistent with McCutcheon's (1980) ideas on planning.

McCutcheon (1980) indicates that there are two sets of questions concerning teacher planning that must be considered. One set of questions concerns the nature of and influences on teacher planning. The second set of questions concerns what teachers should consider as they plan. It appears that, in addition, a third set of questions must be considered. This set concerns the consistency between influences on planning and what is considered dur

planning. It appears that influences on planning are person specific. There are no similarities between the influences on the teacher studied by Kyle (1980) and Forero.

Studies of teacher planning and thinking by McCutcheon (1980), McClune (1971), and others (e.g., Clark & Elmore, 1979; Clark & Yinger, 1979; Kyle, 1980; Merriman, 1976) illustrate two major points. First, when planning, different teachers select different information to process and process it differently; they each make different decisions about what and how to teach. Second, educators at this time don't know what influences teachers to select and process information and arrive at decisions. There is some evidence (Kyle, 1980) that a number of factors influence teachers' planning (e.g., personal interests, education). The question of what influences teacher planning needs further study. As of now we have not learned what influences planning. We know more about what doesn't and what is not effective. We need more studies, where special consideration is given to the identification of teachers' philosophical positions--their beliefs and values concerning the roles of teacher and student. The question of what teachers should consider in planning then can be considered in light of the knowledge of teachers' purposes.

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Appendix

On the following pages are Forero's notes for two of the units of study her students completed during the year this research project took place. The first "Apple Core Unit of Instruction" was developed for and with first and second graders. The major curriculum emphasis in this unit is reading and language arts. The second, "The Conflict-Cooperation," was developed for and with a set of third and fourth graders. The broad content emphasis in Example 2 is social studies. The notes are products of her pre-planning, collaborative conversations with her students, her reflections, and as she said, "a need to show children how things relate" (integration of content areas).

Example 1: Apple Core Unit

List 1: Language Arts

a. Title, author, illustrator
b. Fact/opinion
c. Fiction/fantasy/reality
d. Paragraphs
e. Difference between descriptive/definitional
f. Purposes for reading (recreation, information, describing)
g. Children select books to read regarding apples--recreational purpose
h. Children select books to read regarding apples--instructional/information purpose
i. Children share their books in written or oral form
j. Write a descriptive paragraph dealing with applesauce, trees in blossom, cider being processed, or making jam
k. Compile a book or recipes dealing with apples
l. Write a story about your experience with making sauce, caramel apples, jam, cider, apple bark
m. Write an instructional paragraph about making jam, sauce, cider, bark, caramel apples
n. Outline paragraph identifying main sentence and supportive details
o. Using a written story or paragraph, identify parts of speech (nouns, verbs, adjectives)
p. Using a written story or paragraph, identify punctuation and why used (period, exclamation, comma, questions)
q. Write seasons for headings and beneath phrases describing growth of apples and changes in tree during the year
r. Using recipes, identify and explain abbreviations (T, t, c, pk, qt, bu)
s. Take notes from an oral presentation about making something, book report, or teacher instructions
t. Prepare oral report and a written report
u. Letter writing (addressing, heading, salutation...). Write letter to obtain information, recipe from grandma, product information about fruits from a state, Department of Natural Resources about pesticides/fertilizers

List 2: Reading

a. Use written reports (your own or another student's) and identify words using phonetic principles or structural analysis patterns you are studying.
b. Using a descriptive paragraph, identify topic statement and supportive details.
c. Using a story of your own or of another student, identify sentences that are definitional or instructional.
d. Sight words. Identify sight words you commonly encounter in your writing or from reading other students' stories and learn via this method of word recognition.
e. Classify fruits and vegetables.
f. Classify weather conditions needed for growing specific fruits (apples, grapefruits, pears, tangerines).
g. Families of words following structure or phonics patterns found in reading, writing.
h. Identify fact/opinions in reading, writing.
i. Identify facts and supportive details.
j. Identify words/phrases author uses to persuade reader. (Why move to Florida, why Sunkist oranges are better than any other, why you should not buy a brand name...)
k. Persuasion techniques (band wagon, glittering generalities, personality). Look at advertising for products--written and visual (paper, T.V., radio) and techniques of persuasion.
l. Identify adjectives which describe specific nouns.
m. Synonyms-antonyms-homonyms-heteronyms in stories, books.

List 3: Social Studies

a. Identify regions of Michigan growing apples.
b. Identify regions of U.S. growing apples.
c. Identify how weather and seasons affect people in Michigan (work, clothing, food, recreation).
d. Identify how transportation has assisted cold weather states' food supplies throughout the year.
e. Identify conflict from industry and environmentalists over growing and harvesting fruits and vegetables.
f. Find out how industrialization has affected the harvesting of fruits and vegetables.
g. Find out how industrialization has affected labor in harvesting fruits or vegetables.
h. Research pesticides and fertilizers used for fruit and vegetable growth and their affects on people.
i. Study earth and identify hemispheres, continents, oceans, directions. Identify kinds of fruits and vegetables requiring various climates.
j. Study storms likely in seasons defined as "transitional." Report weather patterns producing these storms and their effects on people and nature.
k. Import-export business.
l. Cooperation--groups preparing materials/instructions for making recipes... working together on oral/written reports.
m. Spices--where they come from/history about discovery and trade.
n. Identify work associated with production/growth of fruits/vegetables.

o. Conflict of special interest groups about growth/production (naturalists, growers, industry).
p. People grouped by eating habits (vegetarians, naturalists).
q. Groups of people (in cooperation and conflict) due to work.
r. People migrating for work (Texas to Michigan to pick fruits/vegetables).
s. Effects on family, schooling of children due to moving each season to different parts of country.

List 4: Science

a. Identify changing forms of matter and why changes occur during making applesauce.
b. With apple cut in half, identify and describe symmetry and equal growth in nature.
c. Research and diagram growth of an apple from bud to ripened fruit stage.
d. Identify common traits of fruit bearing trees.
e. Identify other plants bearing fruit (bushes, vines).
f. Identify scientific steps and procedures of recipes as compared to scientific experiments.
g. Given an experiment, identify kinds of measuring units you will need. Classify them as being used for dry or liquid forms of matter.
h. Identify abbreviations used in math lessons and then identify scientific abbreviations. Are some the same? Are some specifically used in one content area?
i. Find information regarding the process of canning applesauce in a cannery.
j. Find information about hybrids and how we cross two varieties of apples.
k. List different varieties of apples and characteristics of each (texture, use, sweetness).

List 5: Mathematics

a. Identify seasons of Michigan and then research average temperatures for each.
b. Identify precipitation averages for each season.
c. Demonstrate skills for reading thermometers (Celsius, Fahrenheit).
d. Demonstrate knowledge of caloric values (how many calories needed to lose five pounds, gain five pounds).
e. Given a recipe, identify measuring units.
f. Using fractional units, identify portion of year that is winter, summer, fall, spring.
g. Graph the number of weeks in each season. Use different kinds of graphs (bar, line).
h. Graph the number of people making applesauce, apple bark, apple jam in class using bar and line graphs.
i. Graphing skills for time lines.
j. Mapping skills.
k. Years (decade, century).
l. Months in a year.
m. Fractions (years in life spent in one activity/location).
n. Fractions (time for tree to grow, time for apple to grow in a season).
o. Fractions (fertilizers needed for an acre, pesticides for no. of trees).
p. Ratios (trees for number of bushels, dollars of care and upkeep for number of trees).

Curriculum

Example 2: Conflict & Cooperation, Focus on Social Studies Unit Curriculum

List 1a: Social Studies

A. Common Experience: Paper mache maps of states, Cooperation-conflict strategies
B. Processing Experience
   1. Students are divided into pairs or small groups.
   2. Each pair or group selects a state to paper mache.
   3. Teacher and students have materials and resources needed for experience.
C. Teacher and Student Planning
   1. Students identify criteria used for choosing partners (personal traits, values, abilities, friendships).
   2. Students choose partners.
   3. Teacher and class prepare procedures for state selection.
      a. Teacher pulls down map of United States in front of room.
      b. Discussion and selection of a method for state choosing is completed.
   4. Using procedures decided upon, pairs or groups choose states.
   5. Teacher writes students' names on states selected on the map.
   6. Pairs or groups decide how to manage themselves (leader or equal partnership). Some examples of management are:
      a. Each student with equal responsibility. Decisions reached by voting, majority rules.
      b. Leader chosen and other students assigned jobs.
      c. "Swing Shift" where jobs are identified and students rotate working.
   7. Students decide one should be selected for class "counselor." Person chosen by nomination and voting. Counselor's job is to assist with resources, materials, or problems within groups.
   8. Students and teacher identify resources and materials which may be useful. These are secured and organized for student check-out.
      a. Students travel to town library for reference materials.
      b. Students visit school library for reference materials.
      c. People are contacted who may be a resource for individual states.
      d. Appointment calendar is prepared for visitations.
   9. Students draw state on paper. Paper map is cut out and traced on cardboard. Cardboard map cut out and prepared for paper mache.
   10. Students research and identify lakes, rivers, mountains, and natural resources on paper map.
   11. Students identify any additional information they wish to add to paper mache state and record on paper map (cities, climatic patterns, forest/park regions).
   12. Paper mache maps are begun.
   13. Class identifies students with specific strong abilities (labeling, locating references, drawing, making wheat paste) who may be consulted.

14.* Students identify with teacher steps to follow to meet group objective of making paper mache map. Monitor system for recording progress of steps prepared for individuals. *See List 1b for expansion of how this actually occurred in the classroom.

15. Students meet with teacher to identify specific skills to practice, apply, transfer. Monitor system for recording progress is prepared (usually students use teacher's specific skill checklist for their monitor).

16. Upon completion of this experience, students and teacher brainstorm other experiences they might pursue.
    a. Teacher writes content area heading on the board.
    b. Students identify interests/projects and place under appropriate heading.
    c. Students choose specific experience.
    d. Students identify specific steps to complete experience. Monitor system for recording completion of steps made.
    e. Students and teacher identify specific skills students will (1) practice, (2) apply, and (3) transfer for mastery credit. Monitor system for recording skills made or may use teacher's skill checklist.

*List 1b: Expansion of Item 14 in List 1a (experience from selecting states for paper mache). This is an example of what occurred.

A. Students identified ways in which they could have an orderly state selection.
    1. Place numbers on individual strips of paper in a box. One student from each pair or group selects a number. Number one may select state and continue with rest of numbers.
    2. Identify a leader in each pair or group. Choose states by beginning with leaders' last names in alphabetical order.
    3. Place names of states in a box, each leader selects a state.
    4. Informally discuss who would like a specific state and decide on this basis.

B. With the above alternatives identified, the class chose by majority vote #4.

C. Students took turns sharing state they would like to study (family living there, traveled in a state, would like to live there).

D. Pairs or groups decided upon one state they could study and an alternative.

E. Whole class began listening to pairs or groups name the state they selected and by voting determined if they could have a state. Cooperation-conflict strategies surfaced as needed. One group gave their state up to another because a student had a grandmother living there.

F. As strong opposition to task assignments became evident within pairs or groups, class discussion of alternatives took place. Alternatives were written on the board under "Cooperation" and "Conflict" headings. Pairs or groups would then choose a method for coping or decision-making.

G. Students identified ways in which people act out when in conflict with self or others. Behaviors were specifically identified and analyzed as being beneficial or harmful to self or others. Students classified behaviors with personality descriptives. Discussion of altering behaviors and choosing of alternative methods for handling conflict pursued by class.

H. Students identify jobs which must be completed and are also not enjoyable. Students identify ways in which pairs or groups can assign these jobs so that no one person is laden with them.
I. Students identify within each group other jobs they dislike. Class recognizes dislikes vary with individuals. Methods of promoting group compatability are generated by recognizing unique likes/dislikes and abilities within group.

List 2: Learning Community

a. Identify ways people can be grouped (family, work, interests, job)
b. Identify ways to describe regions of land (county, state, city, village)
c. Describe meanings of "cooperation" and "conflict"
d. Describe meaning of "expectations"
e. Determine what people want and possess in life (family, friends, job, money, interests, recreation, etc.)
f. View maps as means to organize information with a "bird's eye view"
g. Identify things affecting our lives (money, weather, interests, goals)
h. Understand and make "Time Lines" (personal life time line divided by years and special occurences, parents time line; grandparents time line)
i. Compare time lines of self, parent, grandparent. Identify similar needs, problems, occurences
j. Identify goals you hope to achieve and estimate when they will occur on time line
k. Construct a time line for development of communication and transportation
l. Graph population movement in Michigan and then your state of choice (50 years)
m. Predict why population changed in specific years (Depression, industry, transportation, climate)
n. Mapping skills (bedroom, house, town, Michigan)
o. Identify symbols and meanings used in mapping or discovered while researching your state
p. Identify different terrains and describe their features
q. Identify different weather patterns and why they affect climates
r. Identify life styles associated with locales
s. Identify industry, agriculture, natural resources associate with locales
t. Identify or predict why people today are moving to the "Sun Belt"
u. Identify realistic and unrealistic expectations of people moving to the "Sun Belt"
v. Identify or predict reasons for conflict for people moving (job expectations, missing family and friends, members of family not wanting to move)
w. Process possible alternative solutions for conflicts people experience when moving
x. Identify conflicts in history of state you are studying (religious, political)
y. Identify possible solutions in history of your state's conflicts
z. Identify your personal heritage and locate countries involved
aa. Identify a state you would like to move to and explain why

List 3: History

a. Time (use of past, present, future references)

b. Time line (personal, historical, developmental)
c. Time vocabulary (decade, century, epic)
d. Heritage
e. Identify states in order they were founded during colonization
f. Identify country colonizing specific state
g. Identify the state's form of governing themselves
h. Identify leaders of the state and their personal characteristics for leadership
i. Identify climate, land, and water areas of each state
j. Identify lifestyles of inhabitants due to "e" above
k. Identify why people came from a country to a colony: religion, politics, adventure, riches
l. Construct a time line for a colony for a given number of years and identify occurences, discoveries, changes, leadership
m. Study one aspect of family life in a colony (keeping a home, farming, defense, family recreation)
n. Identify a conflict and how it was managed (family, government, religion)
o. Study expectations of groups of people (religious, government, family) and identify how they were realized
p. Identify a specific conflict in a colony and alternative solutions. Determine if alternative solutions would have altered history.
q. Choose a conflict present today, identify possible solutions, and select your choice indicating long and short term consequences.
r. Interview someone knowledgeable about a state. Bring information in an outline form to share with the class. Presentation is oral.
s. Prepare a report about the colonization of a state. Decide on an outline format to follow prior to researching state. State why you focused on certain aspects and not others.

List 4: Science

a. Weather. Identify characteristics of a state's climate, seasons, storm patterns.
b. Identify land features which affect weather and describe why.
c. Identify a state's land features contributing to agricultural development in a state.
d. Identify a state's land features contributing to recreational development in a state.
e. Identify a state's climate features contributing to agriculture in a state.
f. Identify a state's climate features contributing to recreation in the state.
g. Study composition of land as being suitable for a given crop.
h. Investigate ways in which man is interfering with natural features of land.
i. Study man's use of land as it affects pollution.
j. Study man's use of land as it affects wildlife.
k. Choose one endangered species in a state and research how this came about and steps which might change the problem.
l. Study drainage and run-off systems that occur naturally or are man-made.
m. Study ways in which individual households can conserve water, forms of energy.
n. Research changes in land in a given state. Include natural and man-induced changes.

o. Demonstrate knowledge regarding the use of a barometer and ways to use for weather prediction.
p. Study humidity (effects with heat, needs for people).
q. Identify ways to measure precipitation.
r. Demonstrate knowledge in reading temperatures (°C and °F) and various thermometers.
s. Investigate natural changes which occur during a specific storm (tornado, hurricane) or under other natural conditions (earthquakes, volcanic eruptions).
t. Identify various land fills used today.
u. Study nuclear power as it may be used for energy purposes (fusion and fision).
v. Study ways used to make gasohol and identify if this is a useful alternative for gasoline shortages.
w. Study alternative methods for heating homes.
x. Identify oil-based products and categories by use (residential, industrial, packaging, compounds).
y. Investigate means of farming oceans or deserts.
z. Using your own home, identify energy uses and ways to conserve.

List 5: Mathematics

a. Demonstrate knowledge of measurement using miles, longitude, latitude, state boundaries.
b. Addition/subtraction operations using mileage.
c. Fractions/ratios using state or country composition of land, desert, water, mountains.
d. Fractions/ratios/percentages using composition of populations (nationalities, employed, unemployed, under 45 years of age and over).
e. Fractions/ratios/percentages using composition of land and use for residential, industrial, agricultural purposes.
f. Fractions/ratios/percentages using data regarding influx of new residents from other states.
g. Using numerical terms, compare inflation rate of your state with the country's.
h. Using numerical terms, compare unemployment rate of your state with the country's.
i. Compare housing costs between two states or between two modes of residence (trailer, duplex).
j. Money management (i.e., given problem of moving from Michigan to Texas identify expenses for moving furniture, travel, room and board).
k. Money management (i.e., plan a trip to another state and identify money needed for travel, room and board, entertainment).

List 6: Reading

a. Vocabulary development--select new words and define, use in oral expression (reports).
b. Sight words--identify words commonly found during information gathering and learn via sight word mode of word recognition.
c. Phonetic generalities--identify a skill you are studying and identify words you have observed that follow the pattern. Identify words which would visually appear to follow the phonetic principle but do not.

d. Structure analysis--identify a skill in analysis you are studying and find words applying that skill.
e. Categorize words with many sub headings demonstrating grouping by similarities and discerning differences.
f. Identify main or topic ideas and supportive details.
g. Identify statements as being fact or opinion.
h. Make inferences from material you have read (i.e., Given location, recreation, industry, agriculture, climate, what would you infer regarding movement of people to/from Michigan?)
i. Cause and effect relationships--use data from (h) and demonstrate cause/effects for people in a given topic (agriculture, recreation, industry) in decisions for moving.
j. Evaluation--evaluate one area of interest about people moving away from "Frost Belt" to "Sun Belt." Do you think the pattern will change? Why? (water shortage, over-crowding, lack of land or resources).
k. Classify similarities and differences about people, state location, climate, agriculture, industry, recreation, education within a state or between two states.
l. Context clues during reading of reference material.
m. Ways for advertising a state/locale (techniques).
n. Persuasion techniques--authors use of words, elimination of facts.
o. Facts/opinions regarding state.
p. Categorize states according to similarities.